

DEPARTMENT OF THE AIR FORCE
Headquarters US Air Force
Washington, DC 20330-1030

CFETP 3C0X1
Parts I and II
1 October 2003

AFSC 3C0X1

COMMUNICATIONS-COMPUTER SYSTEMS OPERATIONS



Basic



Senior



Master

CAREER FIELD EDUCATION AND TRAINING PLAN

**COMMUNICATIONS-COMPUTER SYSTEMS OPERATIONS
AFSC 3C0X1
CAREER FIELD EDUCATION AND TRAINING PLAN**

TABLE OF CONTENTS

PART I

Preface	1
Abbreviations/Terms Explained	2
Section A - General Information	6
Purpose of the CFETP	
Use of the CFETP	
Coordination and Approval of the CFETP	
Section B - Career Field Progression and Information	8
Specialty Description	
Communications-Information Systems Operations Apprentice/Journeyman/Craftsman	
Communications-Computer Systems Superintendent/Communications-Computer Systems Chief	
Enlisted Manager (CEM) (3C090/3C000)	
Skill/Career Progression	
Apprentice (3-Level) Training	
Journeyman (5-Level) Training	
Craftsman (7-Level) Training	
Superintendent (9-Level) Training	
Chief Enlisted Manager (CEM) Training	
Training Decisions	
Community College of the Air Force Academic Programs	
Career Field Path	
Education and Training Path Table	
Section C - Skill Level Training Requirements	19
Purpose	
Specialty Qualification Requirements	
Apprentice (3-Level) Training	
Journeyman (5-Level) Training	
Craftsman (7-Level) Training	
Superintendent (9-Level) Training	
Section D - Resource Constraints	22
Purpose	
Apprentice (3-Level) Training	
Journeyman (5-Level) Training	
Craftsman (7-Level) Training	
Section E - Transition Training Guide	22

Supersedes CFETP 3C0X1, 1 Apr 2001
OPR: 336 TRS/TRR, Ms Nancy Marant
Approved By: HQ USAF/ILXCD, CMSgt Debra Snyder
Editor: 81 TRSS Qualification Training Flight, TSgt Rivera

Number of Printed Pages: 58

Part II

Section A - Specialty Training Standard	23
Section B - Course Objective List	53
Section C - Support Materials	53
Air Force Job Qualification Standards and Air Force Qualification Training Packages	
Section D - Training Course Index	54
Purpose	
Air Force In-Residence Courses	
Air Force Institute for Advanced Distributed Learning (AFIADL) Courses	
Exportable Courses	
Courses Under Development/Revision	
Section E - MAJCOM Unique Requirements	55

COMMUNICATIONS-COMPUTER SYSTEMS OPERATIONS
AFSC 3C0X1
CAREER FIELD EDUCATION AND TRAINING PLAN

PART I

Preface

1. The changing Command, Control, Communications, Computer, and Intelligence (C4I) and Expeditionary Aerospace Forces (EAF) environments require vision, preparation, and attention to ensure people have the right skills and tools to deliver the C4I capabilities and the support required by the war fighter in meeting the Air Force mission of today and the vision of the future. Declining resources, expanding diversity of mission, and ever-changing technologies in the Air Force are impacting the availability of our most valuable resource--people. These factors will continue to exist in the future, making it essential for the work force to be effectively and efficiently trained to perform duties within each skill level of an Air Force Specialty (AFS). To meet the challenges of tomorrow, the Air Force must place a greater emphasis on career field training. This Communications-Computer Systems Operations Career Field Education and Training Plan (CFETP) is a comprehensive core training document that identifies life-cycle training/education requirements, support resources, and minimum core task requirements for the 3C0X1 specialty. The plan is a "training road map" for the career field. It provides personnel a clear career path to success and makes career field training identifiable, measurable, and budget defensible.

2. The CFETP documents the career field training program and consists of two parts. Management uses both parts to plan, manage, and control training within the career field.

2.1. Part I, Section A provides the information necessary for overall management of training in the career field. It contains administrative details and explains the purpose and use of the CFETP. Section B provides a description of the specialty, suggests career field progression, provides career field information, documents training decisions, defines each skill level, and identifies MAJCOM continuation training options. Section C specifies qualification requirements for upgrade/progression in each subsequent skill level in the career field. It also identifies sources of training other than those provided by Air Education and Training Command (AETC). Section D identifies known resource constraints. Section E identifies transition training requirements.

2.2. Part II, Section A identifies the Specialty Training Standard (STS) and includes duties, tasks, technical references, Air Education and Training Command (AETC) conducted training, core tasks, and correspondence course requirements. Section B contains the course objective list/training standard supervisors use to determine if airmen satisfied training requirements. Section C contains support material relevant across the specialty including Air Force Job Qualification Standards/Air Force Qualification Training Packages (AFJQS/AFQTP). Section D lists all mandatory Air Force in-residence, field, Air Force Institute for Advanced Distributed Learning (AFIADL), and exportable courses used to support training for this specialty. Section E is used to identify MAJCOM unique requirements. Supervisors and trainers at the unit level use Part I, Section C, and Part II of the CFETP to identify, plan, and conduct unit level training commensurate with the overall goals of this plan.

3. Use of the guidance in this CFETP provides the foundation for effective and efficient training for individuals in this career field at the appropriate points in their careers. This plan enables the Air Force to train today's work force for tomorrow's jobs.

Abbreviations/Terms Explained

This section provides a common understanding of the terms that apply to the Communications-Computer Systems Operations Career Field and Education Training Plan.

Advanced Training (AT). A formal course of training that leads to a technical or supervisory level of an AFS. Training is for selected airmen at the advanced level of an AFS.

Air Education Training Command (AETC). Responsible for the recruiting, training and education of Air Force personnel. AETC also provides pre-commissioning, professional military, and continuing education.

Air Force Career Field Manager (AFCFM). Representative appointed by the respective HQ USAF Deputy Chief of Staff or Under Secretariat to ensure that assigned AF specialties are trained and utilized to support AF mission requirements.

Air Force Institute for Advanced Distributed Learning (AFIADL). The result of a merger between the Air Force Distance Learning Office and the Extension Course Institute.

Air Force Job Qualification Standard (AFJQS). A comprehensive task list that describes a particular job type or duty position. Supervisors use the AFJQS to document task qualification. The tasks on AFJQSs are common to all persons serving in the described duty position.

Air Force Qualification Training Package (AFQTP). An instructional course designed for use at the unit to qualify or aid qualification in a duty position, program, or on a piece of equipment. It may be printed, computer-based, or other audiovisual media.

Air Force Specialty (AFS). A group of positions (with the same title and code) that require common qualifications.

Career Field Education and Training Plan (CFETP). A CFETP is a comprehensive core training document that identifies: life-cycle education and training requirements; training support resources, and minimum core task requirements for a specialty. The CFETP aims to give personnel a clear path and instill a sense of industry in career field training. CFETPs are officially posted at <http://afpubs.hq.af.mil/>.

Certification. A formal indication of an individual's ability to perform a task to required standards.

Certifying Official. A person assigned by the commander to determine an individual's ability to perform a task to required standards.

Command, Control, Communications, Computer, and Intelligence (C4I). Integrated systems of doctrine, procedures, organizational structures, personnel, equipment, facilities, and communications designed to support a commander's exercise of command and control through all phases of the operational continuum. C4 systems include base visual information support systems. ([Joint Pub 1-02, Department of Defense Dictionary of Military and Associated Terms](#))

Communications -Computer Systems (C-CS). The facilities, equipment, communications, procedures, and personnel essential to a commander for planning, directing, and controlling operations of assigned forces pursuant to the missions assigned.

Communications-Computer Systems Training Advisory Group (CTAG). Chaired by the HQ USAF C-CS AFCFM and attended by the C-CS MAJCOM and FOA functional managers. The CTAG sets training goals and priorities, reviews training programs, and evaluates emerging training technologies. The group meets, as required, to prioritize training product development.

Computer Based Training (CBT). A forum for training in which the student learns via a computer terminal. It is an especially effective training tool that allows the students to practice applications while they learn.

Continuation Training. Additional advanced training that exceeds the minimum upgrade training requirements and emphasizes present or future duty assignments.

Core Task. A task AFSCM's identify as a minimum qualification requirement for everyone within an AFSC, regardless of duty position. Core task may be specified for a particular skill level or in general across the AFSC. Guidance for using core task can be found in the applicable CFETP narrative.

Course Objective List (COL). A publication derived from initial/advanced skills Course Training Standard (CTS), identifying the tasks and knowledge requirements and respective standards provided to achieve a 3-skill level in this career field. Supervisors use the COL to assist in conducting graduate evaluations in accordance with AFI 36-2201, vol 1 thru 6, *Air Force Training program*.

Course Training Standard (CTS). A standard developed for all courses not governed by an STS, including specialized training packages and computer-based training courses.

Critical Tasks - Critical Tasks are tasks that require specific training and certification above and beyond other tasks. Tasks may be defined as critical either through AFI, Technical Orders, higher headquarters, or at any level in the unit.

Enlisted Specialty Training (EST). A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade airmen in each skill level of a specialty.

Enterprise: The entire range of communications/networking within garrison and tactical realms to include voice, video, data, imagery and sensor.

Expeditionary Aerospace Force (EAF). The EAF concept is how the Air Force will organize, train, equip, and sustain itself by creating a mindset and cultural state that embraces the unique characteristics of aerospace power – range, speed, flexibility, precision – to meet the national security challenges of the 21st Century.

Enlisted Specialty Training (EST). A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade airmen in each skill level of a specialty.

Exportable Training. Additional training via computer assisted, paper text, interactive video, or other necessary means to supplement training.

Field Operating Agency (FOA). FOAs are subdivisions of the Air Force directly subordinate to a headquarters US Air Force functional manager. An FOA performs field activities beyond the scope of any of the MAJCOMs. The activities are specialized or associated with an Air Force-wide mission.

Field Training. Technical, operator, and other training that either a field training detachment or field training team conducts at operational locations on specific systems and associated direct-support equipment for maintenance and aircrew personnel.

Go/No Go. Go-The stage at which a trainee has gained enough skill, knowledge, and experience to perform the tasks without supervision. Meeting the task standard. No Go-Trainee has not gained enough skill, knowledge, and experience to perform task without supervision. Does not meet task standard.

Initial Skills Training. A formal school course that results in an AFSC 3-skill level award for enlisted or mandatory training for upgrade to qualified officers.

Instructional System Development (ISD). A deliberate and orderly (but flexible) process for planning, developing, implementing, and managing instructional systems. It ensures personnel are taught in a cost efficient way the knowledge, skills, and attitudes essential for successful job performance.

Major Command (MAJCOM). A MAJCOM represents a major Air Force subdivision having a specific portion of the Air Force mission. Each MAJCOM is directly subordinate to HQ USAF. MAJCOMs are interrelated and complementary, providing offensive, defensive, and support elements.

Occupational Survey Report (OSR). A detailed report showing the results of an occupational survey of tasks performed within a particular AFSC.

On-the-Job Training (OJT). Hands-on, over-the-shoulder training conducted to certify personnel in both upgrade (skill level award) and job qualification (duty position certification) training.

Oracle Training Administration (OTA). An HQ AFPC/DPPAT managed computer support system that links Air Force units or activities. This system is used for planning, controlling, and funding formal training throughout the Air Force, including the MAJCOM TDY-to-School Program.

Proficiency Training. Additional training, either in-residence or exportable advanced training courses, or on-the-job training, provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade.

Qualification Training. Hands-on, task performance based training designed to qualify airmen in a specific duty position. This training program occurs both during and after the upgrade training process and is designed to provide skills training required to do the job.

Resource Constraints. Resource deficiencies (such as money, facilities, time, manpower, and equipment) that preclude desired training from being delivered.

Specialty Training Standard (STS). An Air Force publication that describes an Air Force specialty in terms of tasks and knowledge that an airman in that specialty may be expected to perform or to know on the job. Also identifies the training provided to achieve a 3-, 5-, or 7-skill level within an enlisted AFS. It further serves as a contract between AETC and the functional user to show which of the overall training requirements for an Air Force Specialty Code (AFSC) are taught in formal schools and correspondence courses.

Standard. An exact value, a physical entity, or an abstract concept established and defined by authority, custom, or common consent to serve as a reference, model, or rule in measuring quantities or qualities, establishing practices or procedures, or evaluating results. It is a fixed quantity or quality.

System Training Plan (STP). A living document that explains what training is needed for a system and how to obtain the training.

Task Module (TM). A group of tasks performed together within an AFS that require common knowledge, skills, and abilities. TMs are identified by an identification code and a statement.

Total Force. All collective components (active, reserve, guard, and civilian elements) of the United States Air Force.

Training Capability. The capability of a training setting to provide training on specified requirements, based on the availability of resources.

Training Planning Team (TPT). Comprised of the same personnel as a U&TW, TPTs are more intimately involved in training development and the range of issues examined is greater than in the U&TW forum.

Training Requirements Analysis (TRA). A detailed analysis of tasks for a particular AFSC to be included in the training decision process.

Training Setting. The type of forum in which training is provided (formal resident school, on-the-job, field training, mobile training team, self-study, etc.).

Upgrade Training. Training that leads to the award of a higher skill level.

Utilization and Training Pattern. A depiction of the training provided to and the jobs performed by personnel throughout their tenure within a career field or AFS. There are two types of patterns: 1) Current pattern, which is based on the training provided to incumbents and the jobs to which they have been and are assigned; and 2) Alternate pattern, which considers proposed changes in manpower, personnel, and training policies.

Utilization and Training Workshop (U&TW). A forum of the AFCFM, MAJCOM Functional Managers, subject matter experts (SME), and AETC training personnel that determines career ladder training requirements.

Wartime Tasks. Those task that must be taught when courses are accelerated in a wartime environment. They are identified by an “#” in CFETP Part II, Section A, STS. In response to a wartime scenario, these task will be taught in the 3- level course in a streamlined training environment. These task are only for those career fields that still need them applied to their schoolhouse tasks.

Section A - General Information

1. Purpose of the CFETP. This CFETP provides the information necessary for career field managers, training management, supervisors, and trainers to plan, develop, manage, and conduct an effective and efficient career field training program. The plan outlines the training that individuals in AFSC 3C0X1 should receive in order to develop and progress throughout their careers. For purpose of this plan, training is divided into: initial skills, upgrade, qualification, and continuation training. Initial skills training is the AFS specific training an individual receives upon entering into the AFSC. This training is provided by the 336 Training Squadron (TRS) at Keesler AFB, MS. Upgrade training identifies the mandatory courses, task qualification requirements, and Career Development Course (CDC) completion required for award of the 5-, 7-, or 9-skill level. Qualification training is actual hands-on task performance training designed to qualify an airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills/knowledge training required to do the job. Continuation training is additional training provided to 3-, 5-, 7-, and 9-level personnel to increase their skills and knowledge beyond the minimum required for upgrade. The CFETP has several purposes, some of which are:

1.1. Serves as a management tool to plan, develop, manage, and conduct a career field training program. Also, ensures that established training is provided at the appropriate point in an individual's career.

1.2. Identifies task and knowledge training requirements for each skill level in the specialty and recommends training throughout each phase of an individual's career.

1.3. Lists training courses available in the specialty, identifies sources of the training, and provides the training medium.

1.4. Identifies major resource constraints that impact implementation of the desired career field training program.

2. Use of the CFETP. The CFETP is maintained by the 3C Air Force Career Field Manager (AFCFM), HQ USAF/ILCXD. MAJCOM Functional Managers and AETC review the plan annually to ensure currency and accuracy and forward recommended changes to the AFCFM. Using the list of courses in Part II, they determine whether duplicate training exists and take steps to eliminate/prevent duplicate efforts. Career field training managers at all levels use the plan to ensure a comprehensive and cohesive training program is available for each individual in the career ladder.

2.1. AETC training personnel develop/revise formal resident and exportable training based upon requirements established by the users and documented in the STS. They also develop procurement and acquisition strategies for obtaining resources needed to provide the identified training.

2.2. MAJCOM Functional Managers ensure their training programs complement the CFETP mandatory initial skill and upgrade requirements. They also identify the needed AFJQSS/AFQTPs to document unique upgrade and continuation training requirements. Requirements are satisfied through OJT, resident training, contract training, or exportable courseware/courses. MAJCOM developed training to support this AFSC must be included into this plan.

2.3. 81 TRSS Qualification Training Flight (Q-Flight) develops AFJQSS/AFQTPs based on requests submitted by the MAJCOMs and according to the priorities assigned by the Communications-Computer Systems Training Advisory Group (CTAG).

2.4. Unit level training managers and supervisors manage and control progression through the career field by ensuring individuals complete the mandatory training requirements for upgrade specified in this plan and supplemented by their MAJCOM. The list of courses in Part II is used as a reference for planning continuation or career enhancement training. In conjunction when available, the Core

Automated Maintenance System (CAMS) is the primary means of collecting and maintaining information pertaining to OJT training and is mandatory for use by all 3CXXX career fields.

2.5. Submit recommended CFETP improvements/corrections to the AFSC Training Manager at 336 TRS/TRR, 600 Hanger Road, Keesler AFB MS 39534-2235 or call DSN 597-5524.

3. Coordination and Approval of the CFETP. The AFCFM is the approval authority. MAJCOM representatives and AETC training personnel coordinate on the career field training requirements. The AFCA executive agent reviews CFETPs for accuracy prior to submission for approval by the AFCFM.

Section B - Career Field Progression and Information

4. Specialty Description. This information supplements that presented in AFMAN 36-2108, *Airman Classification*.

4.1. Communications-Computer Systems Operations Apprentice/Journeyman/Craftsman (3C031/3C051/3C071).

4.1.1. Specialty Summary. Supervises and performs Communications-Computer Systems (C-CS) Operations and executes associated information systems support programs. Performs network management, control, and administration on DoD local, metropolitan, and wide area networks, and Command, Control, Communications, Computer and Intelligence systems, Defense Message Systems (DMS), command and control, and functional area systems. Administers Communications Security (COMSEC) and Information Assurance (IA) programs. Provides information systems life-cycle management. Related DoD Occupational Subgroup: 153100.

4.1.2. Duties and Responsibilities:

4.1.2.1. Performs daily network management, control, and administration of information flow in Network Management (NM), Help Desk (HD), Information Protection Operations (IPO), and Network Administration (NA).

4.1.2.2. Oversees network configuration, faults, performances, and security management through HD, IPO, and NA functions. Reviews and plans networks, controls distribution of Internet Protocol (IP) address space, and enforces Internet use policy. Implements Air Force Computer Emergency Response Team and Automated Systems Security Incident Support Team security fixes, operating system patches, and antivirus software. Develops local restoral and contingency operations plans. Processes and reviews C4 systems requirement documentation, telecommunications service requests, status of acquisition messages, and telecommunications service orders. Performs strategic and budget planning for networks.

4.1.2.3. Categorizes, isolates, and resolves network problems. Performs fault isolation by validating, isolating, and correcting faults, and verifying service restoral with customers. Processes, documents, and coordinates resolution of trouble calls from Workgroup Managers and Functional System Administrators. Processes scheduled and authorized network outages. Implements service restoral plans, coordinates corrective actions, and submits outage reports in response to unscheduled outages.

4.1.2.4. Implements and enforces national, DoD, and Air Force security policies and directives. Performs proactive security functions to deter, detect, isolate, contain, and recover from information system and network security intrusions. Conducts daily traffic analysis, identifies and characterizes incidents, generates incident reports, and investigates suspicious network activity. Installs, monitors, and directs proactive and reactive computer network defense measures to ensure the availability, integrity, and reliability of base networked and stand-alone information resources.

4.1.2.5. Provides core network services configuring, installing, and managing data services at the network hardware and software operating systems level. Controls and manages network IP address space, Domain Name System, Network Directory, and messaging services. Manages remote dial-in communications capabilities and remote distributed print services. Implements software patches, security fixes, and tests and validates modified system configurations.

4.1.2.6. Manages organizational equipment accounts verifying receipt, performs audits, and resolves and reports discrepancies. Monitors and manages user sub-accounts, maintains base equipment and accountable software inventory using the Air Force Equipment Management System. Oversees initial, joint and annual equipment inventories; monitors status of report of survey, reports of excess equipment, and equipment disposition and turn-in. Monitors maintenance contracts and determines repair cost-effectiveness. Provides training to unit-level equipment custodians.

4.1.2.7. Administers the full range of IA disciplines to include Computer Security, Network Certification and Accreditation, Emission Security, Information Assurance Assessment and Telecommunications Monitoring and Assessment Programs. Provides accreditation guidance and advice to Designated Approving Authorities on classified or unclassified networks. Interprets IA directives and policies. Provides program guidance to users through training programs and staff assistance visits. Enforces IA compliance through inspection programs. Reviews network configuration change proposals for compliance to information, system, and network security directives and local policies.

4.1.2.8. Provides guidance, assistance, training, and education to unit COMSEC Responsible Officers (CROs) and Secure Telephone Unit III Responsible Officers (SROs) on proper control, accountability, and destruction of COMSEC material. Implements, interprets, and supplements COMSEC directives and policy. Maintains documentation on user accounts and ensures 100 percent accountability of tape-based and Electronic Key Management System keying material. Conducts semiannual COMSEC audits and inventories on CRO accounts and report COMSEC incidents according to AF and DoD policy. Issues tape-based or electronic material to CROs using the Data Transfer Device (DTD) and provide DTD training as required.

4.1.2.9. Performs system resource management, manages system user accounts, performs system wide backups, and load and capacity planning and management. Installs, implements, configures, and maintains functional system components. Connects systems to infrastructure. Administers database operations, implement conversions, and investigates problems in database environment. Conducts local functional and connectivity testing to ensure continuing operability, provides ongoing optimization and problem solving support, and recover systems from malfunctions and security intrusions. Provides customer assistance and informal training for assigned systems. Utilizes network components (e.g., trusted routers, bastion hosts, gateways, firewalls, etc.) or information systems to enforce mandatory access control. Applies computer security requirements to safeguard systems and information.

4.1.2.10. Securely processes, tracks, and oversees delivery of classified and unclassified message traffic via Defense Message System (DMS) and Exchange E-mail System. Manages domain and exchange administration and trains customers on Secret Internet Protocol Network (SIPRNET) usage when SIPRNET systems are co-located in message centers. Provides operational support and guidance for legacy messaging systems {e.g. Automatic Digital Network (AUTODIN), Message Distribution Terminal (MDT) and Communications System Processor (CSP)}. Verifies users security clearance and "need to know" to classified message material.

4.2. Communications-Computer Systems Superintendent/Communications-Computer Systems Chief Enlisted Manager (CEM) (3C090/3C000).

4.2.1. Specialty Summary. Manages fixed or deployed Communications-Computer Systems (C-CS) operations and software activities. Activities include system analysis and design, programming, systems operation and maintenance, resource management and security management. Monitors functional C-CS. Helps develop C-CS plans and policy. Related DoD Occupational Subgroup: 532.

4.2.2. Duties and Responsibilities.

4.2.2.1. Plans and organizes C-CS operations and software activities. Plans and supervises system installation, and evaluates facilities layout. Evaluates performance standards. Designs and develops organizational structures, and determines equipment, training, and supplies required for systems implementation and support. Interacts with customers to promote customer satisfaction. Establishes C-CS procedures.

4.2.2.2. Directs C-CS activities responsible for system analysis and design, programming, operations and maintenance, security, systems management, technical support, and resource management. Implements and interprets policies, directives, and procedures.

4.2.2.3. Establishes training requirements. Establishes training programs to meet local knowledge requirements and to enhance professional awareness of C-CS technology.

4.2.2.4. Inspects and evaluates C-CS activities for compliance with directives. Evaluates, rates, and prepares reports on the C-CS activity effectiveness. Recommends and implements corrective action for improved methods and procedures. Evaluates effectiveness of equipment usage, systems performance, customer service, supplies, and system scheduling, processing, and maintenance.

4.2.2.5. Manages C-CS development functions. Helps functional users define requirements. Recommends automated methods to enhance resource use. Supervises functional user requirements translation into automated systems capabilities. Organizes software development teams that use software methodologies. Oversees data base design to optimize collecting and retrieving information. Supervises test and evaluation efforts to determine errors in logic, information flow, and system performance. Organizes and participates in C-CS implementation and conversion. Ensures continued interface between functional users, and programming and operations personnel for implemented systems. Ensures compliance with standards for systems software and documentation.

5. Skill/Career Progression. Adequate training and timely progression from the apprentice to superintendent skill levels play an important role in the Air Force's ability to accomplish its mission. It is essential that everyone involved in training do their part to plan, manage, and conduct an effective training program. The guidance provided in this part of the CFETP and the [3C0X1 Education and Training Path](#) table will ensure individuals receive viable training at appropriate points in their careers.

Apprentice (3-Level) Training
Upon completion of initial skills training a trainee will work with a trainer to enhance their knowledge and skills.
Utilize CDCs, AFJQSS/AFQTPs, and other exportable courses to progress in the field.
Once task certified, a trainee may perform the task unsupervised.
Journeyman (5-Level) Training
Enter into continuation training to broaden experience base.
Five-levels may be assigned job positions such as team leader and shift supervisor.
Attend the Airman Leadership School (ALS) after serving 48 months in the Air Force or selection to rank of SSgt (active duty only). In-residence or correspondence course is required for Air National Guard/Air Force Reserve Command (ANG/AFRC) personnel.
Use CDCs and other references identified by the AFCFM to prepare for Weighted Airman Performance Systems (WAPS) testing.
Should continue pursuing a Community College of the Air Force (CCAF) degree.
Craftsman (7-Level) Training
A seven-level can expect to fill various supervisory and management positions such as shift leader, team chief, supervisor, or task certifier.
Seven-levels should take courses or obtain added knowledge on management of resources and personnel and attend the 7-level resident course.
Encouraged continuing academic education through CCAF and higher degree programs.
Attend the Noncommissioned Officer Academy (NCOA). In-residence or correspondence course is required for ANG/AFRC personnel.
Superintendent (9-Level) Training
A nine-level can be expected to fill positions such as flight chief, superintendents, and various staff positions.
Should pursue increased knowledge for budget, manpower, resources, and personnel management.
Recommend they pursue additional education and completion of courses outside of their AFSC.
Chief Enlisted Manager (CEM) Training
Must be selected for CMSgt and possess qualifications in a feeder specialty (3C090, 3C191, 3C192, 3C291, or 3C391).
CEMs work in a variety of similar jobs and functional areas where general managerial and supervisory abilities can be most effectively used and challenged.
Resident graduation of the USAF Senior NCO Academy (SNCOA) is a prerequisite for CMSgt sew-on (active duty only). In-residence or correspondence course required for ANG/AFRC personnel.

6. Training Decisions. This CFETP was developed to encapsulate an entire spectrum of training requirements for the Communications-Computer Systems Operations career field, using a building block

approach (simple to complex). Included in this spectrum was the strategy of when, where, and how to meet the training requirements. The strategy must be apparent and affordable to reduce duplication of training and eliminate a disjointed approach to training. The following training decisions were made by members of the 8-12 July 2002 Utilization and Training Workshop.

6.1. The forum conducted a comprehensive review of the 3-, and 7- level course curriculum recommending the introduction of new terminology and technology, as well as several from the AF FMs and subject matter experts.

6.1.1. Five-Level Upgrade Requirements. The mid-range CDC course is providing in-depth and carefully developed lessons on military C-CS operations at all levels. The course continues from the 3-level resident course and delivers additional information on specialty instruction across all the functional areas of the C-CS Operations specialty. Minor changes were incorporated into the STS sections 1-5, 7, 9. Sections 6,8, 10-12 received extensive rearrangement of task, change in proficiency codes and either added or removed from a core task. Section 13, Oversight of Information was added as a new training requirement.

6.1.2. Seven-Level Upgrade Training Requirements. The forum unanimously agreed to hold off on making changes to the 7- level course during this U&TW. A decision was made to conduct at a later date a separate forum to determine what would be trained in the E3ACR3C071 two-week course. At the Communications Training Advisory group (CTAG) held in APR 03, an agreement was made to revise the 7-level course with a focus on Information Assurance (IA). This course will cover several classified security issues that pertain to the 3C community. Implementation date and specific course content is pending for FY 04.

6.2. Proficiency Training. This training is job qualification for an assigned duty position. Additional qualification training becomes necessary when personnel transfer to another duty position, the unit mission changes, a new personnel program comes on board, or any time changes in techniques or procedures occur.

6.2.1. 81 TRSS (Q-Flight) develops AFJQSS/AFQTPs to support tasks relating to communications-electronics and communications-computer systems, functions, and duties. Completion of AFJQSS/AFQTPs is mandatory by duty position for personnel in upgrade or qualification training. For example: Personnel assigned to a Network Control Center (NCC) performing Network Management duties must use AFJQS 3CXXX-200C.

6.2.2. Licensing and Certification Training. AFI 33-115 Vol 2, *Licensing Network Users and Certifying Network Professionals*, defines policy and procedures for training and certifying Air Force network professionals who access the Air Force (.af.mil) domain. Compliance with this AFI meets DoD initiative to train and certify those network professionals who actively manage, configure, and control the network, to a consistent verifiable skill level ensuring the DoD Information Assurance (IA) posture is uncompromised. The objective of the network certification program is to qualify network personnel for position certification during peacetime and combat operations in support of the EAF. Network personnel perform daily network management (NM), control, administration, and security of the enterprise. Certification is achieved through a combination of AFJQSSs, in-residence courses, supervised on-the-job training (OJT), and Air Force provided interactive computer based training (CBT).

6.2.3. AFJQS for Enterprise Network Professionals. The network certification program trains all network professionals to standardized criteria. Network professionals are military and DoD civilians who work in the following functional areas: Help Desk Services, Network Administration, Network Management, Information Protection (IP), Workgroup Management (WM), and Functional System Administration (FSA). This program standardizes demonstrable, knowledge level, and core skills for enterprise network professionals across the Air Force. Supervisors determine the network professional crew position based on the trainee's duties. Training required for each crew position is identified in AFJQS 3CXXX-200C, AFJQS for Enterprise Network Professionals. This AFJQS outlines knowledge training and performance tasks network professionals must complete to receive certification for each crew position. The tasks listed are the minimum required for Network Certification. MAJCOMs and bases may add unique training requirements to ensure position certification is comprehensive and meets mission needs. The following table lists the various crew positions for enterprise network professionals. Refer to AFI 33-115 Vol 1, *Network Management*, for additional information.

CREW POSITION CODES

Position Code	Network Crew Position
A	NCC Help Desk/Network Operations Security Center (NOSC) Event Manager (2EXXX, 3CXXX, and 3AXXX)
B	Messaging Technician (3C0X1)
C	Configuration Management Technician (3C0X1)
D	Applications Services Technician (3C0X1)
E	NCC Infrastructure Technician/NOSC Enterprise Controller (2E2X1 and 3C2X1)
F	Internet Services Technician (3C0X1)
G	Boundary Protection Specialist/NOSC Network Defense Controller (3C0X1)
H	Vulnerability Assessment Specialist (3C0X1)
I	Intrusion Detection Specialist (3C0X1)
J	Workgroup Manager (3A0X1)
K	Functional System Administrator (any AFSC)
ALL	All Crew Positions

7. Community College of the Air Force (CCAF) Academic Programs. Enrollment in CCAF occurs upon completion of basic military training. CCAF provides the opportunity for all enlisted members to obtain an Associate in Applied Science degree. The degree must be completed before the student separates from the Air Force, retires, or is commissioned as an officer. In addition to its associates degree program, CCAF offers the following:

7.1. Occupational Instructor Certification. The College offers the Occupational Instructor Certification to instructors teaching full time in a CCAF affiliated school. To qualify, instructors must complete an instructor course, a teaching practicum, have two years teaching experience, hold an associate or higher degree, and be recommended by their commander/commandant.

7.2. Trade Skill Certification. When a CCAF student separates or retires, a trade skill certification is awarded for the primary occupational specialty. The College uses a competency based assessment process for trade skill certification at one of four proficiency levels-Apprentice, Journeyman, Craftsman/Supervisor, or Master Craftsman/Manager. The trade skill is annotated on DD Form 214, Certificate Of Release Or Discharge From Active Duty.

7.3. The Information Systems Technology (0IYY) program applies to the 3C0X1 career field.

7.3.1. Degree Requirements: Individuals must hold the 5-skill level at the time of program completion.

	Semester hours
Technical Education.....	24
Leadership, Management, and Military Studies.....	6
Physical Education.....	4
General Education	15
Program Electives	15
Total	64

7.3.2. Technical Education (24 semester hours): A minimum of 12 semester hours of Technical Core subjects and courses must be applied and the remaining semester hours will be applied from Technical Core/Technical Elective subjects and courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject/course must be approved in advance by the technical branch of the CCAF Administrative Center.

7.3.3. Leadership, Management, and Military Studies (6 semester hours): Professional military education (PME) and/or civilian management courses. See CCAF General Catalog for application of civilian management courses.

7.3.4. Physical Education (4 semester hours): Satisfied upon completion of basic military training.

7.3.5. General Education (15 semester hours): Courses must meet the criteria for application of courses to the General Education requirement and be in agreement with the definitions of applicable General Education subjects/courses as outlined in the CCAF General Catalog.

7.3.6. Program Elective (15 semester hours): Satisfied with applicable Technical Education; Leadership, Management, and Military Studies; or General Education courses, including natural science courses meeting General Education requirement application criteria. Six semester hours of CCAF degree applicable technical credit otherwise not applicable to this program may be applied.

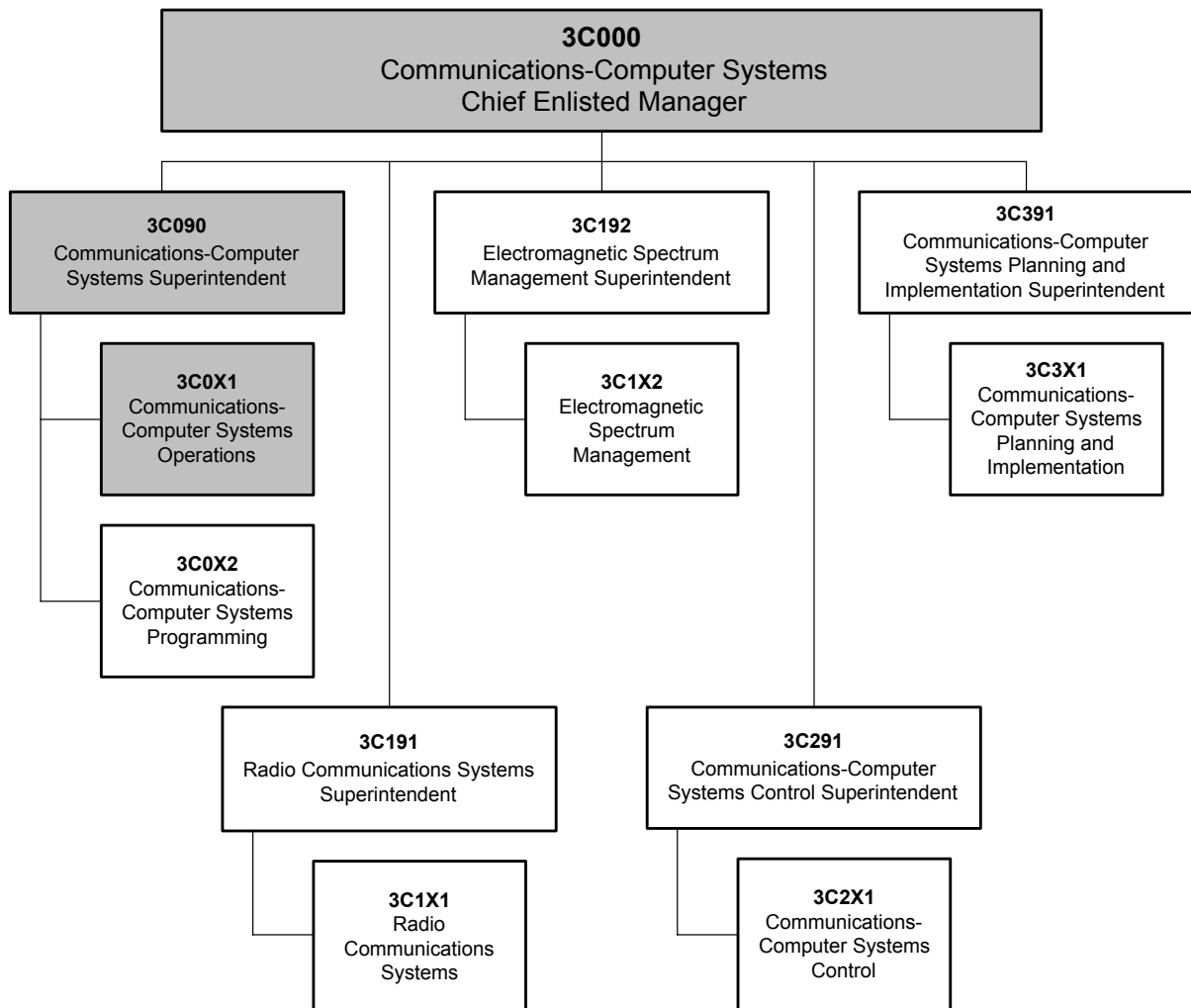
7.4. See the current CCAF General Catalog for details regarding the Associates of Applied Science in Information Systems Technology. The catalog is available at your education office or from <http://www.au.af.mil/au/ccaf/>.

7.5. Additional off-duty education is a personal choice that is encouraged for all. Individuals desiring to become an AETC instructor should be actively pursuing an associate degree. A degreed faculty is necessary to maintain CCAF's accreditation through the Southern Association of Colleges and Schools.

8. Career Field Path. The following summarizes career progression and personnel allocations across the career ladder. 3C0XX personnel maintain their individual AFSC identifiers through the rank of MSgt. Upon promotion to SMSgt, AFSCs 3C0X1 and 3C0X2 merge to become a 3C090. At Chief, the 3C090 merges with other 3CXXX 9-level specialties to become a 3C000. Specific demographic information is available on the Web at

http://www.afpc.randolph.af.mil/demographics/nu_demos/Regular_Enlisted_CAFSC_Rank_Gender.htm

3CXXX Career Field Progression



**3C0X1, COMMUNICATIONS-COMPUTER SYSTEMS OPERATIONS
EDUCATION AND TRAINING PATH**

EDUCATION AND TRAINING REQUIREMENTS	AVERAGE SEW ON TIME AND COMMENTS
BASIC MILITARY TRAINING SCHOOL	
APPRENTICE TECHNICAL SCHOOL (3-SKILL LEVEL).....Mandatory	Amn..... 6 months
UPGRADE TO JOURNEYMAN (5-SKILL LEVEL) Minimum 15 months OJT training (9 months for retrainees). Complete 5-Level CDCs Mandatory Specific AFJQSs/AFQTPs for equipment at assigned location. Mandatory C-CS Management and Generic AFJQSs/AFQTPs for various unit level duties..... Mandatory AETC Supplemental training courses as determined by MAJCOM Optional	A1C 10 months SrA 3 years Earliest 28 Months HYT 10 years
AIRMAN LEADERSHIP SCHOOL (ALS) Attendance is limited to SSgt selectees or those attaining 48 months Total Active Federal Military Service (TAFMS) and who have not been selected for promotion to SSgt. Completion is mandatory before assuming the rank of SSgt. ANG/AFRC may complete by correspondence course..... Mandatory	TRAINER: Qualified to perform the task to be trained; must attend formal OJT Trainer Training; and appointed by the Commander. Refer to AFI 36-2201 Vol 3, Chap 6
UPGRADE TO CRAFTSMAN (7-SKILL LEVEL) Minimum rank of SSgt. 12 months OJT training (6 months for retrainees). Completion of AFQTP 3CXXX-212A, Work Center Supervisor's Handbook. Attendance at formal 7-level school. Must be 7- level to sew on TSgt..... Mandatory C-CS Management and Generic AFJQSs/AFQTPs for various unit level duties..... Mandatory AETC Supplemental training courses as determined by MAJCOM Optional	SSgt 7.5 years Earliest 3 years HYT 20 years TSgt..... 12.5 years Earliest 5 years HYT 24 years CERTIFIER: Must be at least a SSgt (E-5) with a 5-skill level or civilian equivalent; attend the Air Force Training Course; be capable of evaluating the task being certified; evaluate training and certify qualifications. Refer to AFI 36-2201 Vol 3, Chap 6

3C0X1, COMMUNICATIONS-COMPUTER SYSTEMS OPERATIONS EDUCATION AND TRAINING PATH	
EDUCATION AND TRAINING REQUIREMENTS	AVERAGE SEW ON TIME AND COMMENTS
NONCOMMISSIONED OFFICER ACADEMY (NCOA) Attendance is limited to TSgt and TSgt selectees. Completion is mandatory before assuming the rank of MSgt. ANG/AFRC may attend in-residence as SSgt or TSgt or complete correspondence course.Mandatory NCOA Correspondence Course.....Optional	MSgt..... 16 years Earliest 8 years HYT 26 years
USAF SENIOR NONCOMMISSIONED OFFICER ACADEMY (SNCOA) Attendance is limited to SMSgt, SMSgt selectees, and selected MSgts. Completion is mandatory before assuming the rank of CMSgt.Mandatory SNCOA Correspondence CourseOptional ANG/AFRC may complete by correspondence course. ANG/AFRC MSgts may attend in-residence.....Mandatory	SMSgt 19.2 years Earliest 11 years HYT 28 years
UPGRADE TO SUPERINTENDENT (9-SKILL LEVEL) Awarded upon sew on of SMSgt.....Mandatory C-CS Management and Generic AFJQSS/AFQTPs for various unit level duties.....Mandatory	CMSgt 21.5 years Earliest 14 years HYT 30 years

NOTE 1: Published sew-on times are Air Force averages. Refer to the Air Force Personnel Center's homepage to determine career field specific information: <http://www.afpc.randolph.af.mil/eprom>.

NOTE 2: See Part II, Sections C and D for a list of AFJQSS/AFQTPs and AETC supplemental training.

NOTE 3: All core/duty position tasks must be completed prior to upgrade.

Section C - Skill Level Training Requirements

9. Purpose. The various skill levels in the career field are defined in terms of tasks and knowledge requirements for each skill level in the Communications-Computer Systems Operations career field of the Communications-Computer Systems career ladder. They are stated in broad, general terms and establish the standards of performance. Core tasks, knowledge items, and skill requirements for this specialty are identified in the STS, COL, CDCs, AFJQSS/AFQTPs, etc. Completion of the mandatory 3-level skill awarding course, CDCs, 7-level course, and applicable AFJQSS/AFQTPs define the Air Force core tasks for this specialty.

10. Specialty Qualification Requirements.

10.1. Apprentice (3-Level) Training.

KNOWLEDGE	Programming C-CS systems and information technology elements Capabilities, functions, and technical methods for C-CS network operation Organization and functions of Air Force Automated C-CS and elements Communications-computer flows Operations and logic of electromechanical and electronic C-CS systems and their components Techniques for solving C-CS operations problems C-CS security procedures and programs including IP
EDUCATION	Completion of high school with courses in mathematics and computer science is desirable
TRAINING	Completion of the Apprentice C-CS Operations course, E3ABR3C031 005 (PDS Code QVI) (See Part II, Section B for Course Objective List)
EXPERIENCE	None required
OTHER	Requires routine access to Top Secret material or similar environment. For award and retention of AFSCs 3C031, requires completion of a current Single Scope Background Investigation (SSBI) according to AFI 31-501, <i>Personnel Security Program Management</i> <i>NOTE: Award of the 3-skill level without a completed SSBI is authorized provided an interim SSBI has been granted according to AFI 31-501.</i>
IMPLEMENTATION	Attendance at the Apprentice C-CS Operations course is mandatory for award of the 3-skill level unless waived by 3C AFCFM. Waiver approval authority for AFRC/ANG personnel will be their respective 3C Functional Manager.

10.2. Journeyman (5-Level) Training.

KNOWLEDGE	All 3C031 knowledge qualifications apply to the 3C051 requirements
TRAINING	No mandatory AETC training courses are required for upgrade.
EXPERIENCE	Qualification in and possession of AFSC 3C031 C-CS functions such as system operations, control, micro and multi-user technical support, system restoral, resource accounting, or security Completion of the 3C051 Career Development Course Completion of all STS core tasks Completion of applicable AFJQSs/AFQTPs Completion of all local tasks assigned for the duty position
OTHER	Requires routine access to Top Secret material or similar environment. For award and retention of AFSCs 3C051, requires completion of a current Single Scope Background Investigation (SSBI) according to AFI 31-501, <i>Personnel Security Management Program</i> .
IMPLEMENTATION	Entry into formal journeyman upgrade training is accomplished once individuals are assigned to their first duty station. Qualification training is initiated anytime individuals are assigned duties for which they are not qualified. Use CDCs and AFJQSs/AFQTPs concurrently to obtain the necessary qualification for refresher and cross-utilization training.

10.3. Craftsman (7-Level) Training.

KNOWLEDGE	All 3C051 knowledge qualifications apply to the 3C071 requirements
TRAINING	Completion of the Advanced C-CS Operations course, E3ACR3C071 003 (PDS Code QXI) (See Part II, Section B for Course Objective List)
EXPERIENCE	Qualification in and possession of AFSC 3C051 Supervising one of the following functions: analysis of system failure and restoral, C-CS operations, Command and Control systems support, system or network management or administration, resource management, or security management Completion of all STS core tasks Completion of AFQTP 3CXXX-212A, Work Center Supervisor's Handbook Completion of applicable AFJQSs/AFQTPs Completion of all local tasks assigned for the duty position
OTHER	Specialty requires routine access to Top Secret material or similar environment. For award and retention of AFSCs 3C071, requires completion of a current Single Scope Background Investigation (SSBI) according to AFI 31-501, <i>Personnel Security Management Program</i> .
IMPLEMENTATION	Entry into OJT is initiated when individuals obtain the necessary rank and skill level. Qualification training is initiated anytime an individual is assigned duties for which they are not qualified. Use CDCs and AFJQSs/AFQTPs concurrently to obtain the necessary qualification for refresher and cross-utilization training.

10.4. Superintendent (9-Level) Training.

KNOWLEDGE	Techniques and procedures of systems analysis and design Software methodology Communications-computer processing System operation and maintenance System and equipment capability, capacity, and logic Performance measurement, security, and resource management
TRAINING	No mandatory AETC training courses are required for upgrade.
EXPERIENCE	Qualification in and possession of AFSC 3C071 or 3C072 Directing functions such as systems analysis or design, software development, teleprocessing systems operations and maintenance, C-CS security, or resource management
OTHER	Eligibility for a Secret security clearance according to AFI 31-501, <i>Personnel Security Program Management</i> , is mandatory for award and retention of this skill level
IMPLEMENTATION	Entry into OJT is initiated when individuals are selected for the rank of SMSgt. Qualification training is initiated anytime individuals are assigned duties for which they are not qualified. Completion of CDCs associated with related 3C0XX career fields is recommended.

10.5. Training Sources.

10.5.1. AFSC specific training – 336 TRS, Keesler AFB, MS at <https://wwwmil.keesler.af.mil>.

10.5.2. CDC 3C051 is available for upgrade purposes through the unit training manager. For individual qualification and cross-utilization training, CDCs are ordered through the unit training office.

10.5.3. AFJQSS/AFQTPs are Air Force publications and are mandatory for use by personnel in upgrade or qualification training. AFJQSS/AFQTPs developed by the 81 TRSS (Q-Flight) and may be downloaded from <https://wwwmil.keesler.af.mil/81trss/qflight/index.htm>. Procedures for requesting development of AFJQSS/AFQTPs are contained in AFI 36-2233, *Air Force On-the-Job Training Products for Communications-Electronics Enlisted Specialty Training*. AFJQSS/AFQTPs are listed in Part II, Section C, of this CFETP.

Section D - Resource Constraints

11. Purpose. This section identifies known resource constraints that preclude optimal/desired training from being developed or conducted, including information such as part numbers, national stock numbers, number of units required, cost, manpower, etc. Included are narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training. Finally, this section includes actions required, OPR, and target completion date. Resource constraints will be, at a minimum, reviewed and updated annually.

12. Apprentice (3-Level) Training.

12.1. Constraints: None.

12.1.1. Impact. N/A

12.1.2. Resources Required. N/A

12.1.3. Action Required. N/A

12.2. OPR/Target Completion Date. N/A

13. Journeyman (5-Level) Training.

13.1. Constraints: None.

13.1.1. Impact. N/A

13.1.2. Resources Required. N/A

13.1.3. Action Required. N/A

13.2. OPR/Target Completion Date. N/A

14. Craftsman (7-Level) Training.

14.1. Constraints: None.

14.1.1. Impact. N/A

14.1.2. Resources Required. N/A

14.1.3. Action Required. N/A

14.2. OPR/Target Completion Date. N/A

Section E - Transition Training Guide

There are currently no transition training requirements. This area is reserved.

PART II

Section A - Specialty Training Standard

1. Implementation. This STS will be used for technical training provided by AETC for the 3-level class beginning 20031006 and graduating 20040114. The 7-level class is currently under review, implementation date and specific course content is pending for FY 04.

2. Purpose. As prescribed in AFI 36-2201, vol 5, this STS:

2.1. Lists in column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for airman to perform duties in the 3-, 5-, and 7-skill level.. Column 2 (Core Tasks) identifies, by asterisk (*), specialty-wide training requirements. NOTE: Core tasks are minimum task training requirements for upgrade to the 5- and 7 -skill level.

2.2. Provides certification for OJT. Column 3 is used to record completion of tasks and knowledge training requirements. Use automated training management systems to document technician qualifications, if available. Task certification must show a certification/completion date. (As a minimum, use the following column designators: Stop Date, Certifier Initials). . When available, Core Automated Maintenance System (CAMS) is the primary means of collecting and maintaining information pertaining to OJT training and is mandatory for use by all 3CXXX career fields. You must have prior approval by the Air Force Career Field Manager before using a different data collection system.

2.3. Shows formal training and correspondence course requirements. Column 4 shows the proficiency to be demonstrated on the job by the graduate as a result of training on the task/knowledge and the career knowledge provided by the correspondence course. See the AFIADL Catalog maintained at <http://www.maxwell.af.mil/au/afiadl> for current CDC listings.

2.4. Qualitative Requirements. Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and career development courses.

2.5. Becomes a job qualification standard (JQS) for on-the-job training when placed in AF Form 623, On-the-Job Training Record, and used according to AFI 36-2201, vol 3. When used as a JQS, the following requirements apply:

2.5.1. Training Documentation. Identify duty position requirements to include core tasks by circling the subparagraph number next to the task statement (with the exception of electronic records). As a minimum for initial certification, complete the following columns in Part II of the CFETP:

2.5.1.1. Training start date (day, month, year), training complete date (day, month, year), trainee Initials, trainer Initials, certifier initials when required by AFCFM (for tasks requiring third-party certification).

2.5.2. Knowledge training documentation. Knowledge training is required if no CDC is available for the AFS or training must be documented for a CDC waiver. Document knowledge training by circling the corresponding letter in the applicable skill level CDC column (with the exception of electronic records). Use the following procedures to document the CFETP:

2.5.2.1. Training start date (day, month, year), training complete date (day, month, year), trainee Initials, trainer Initials.

2.5.3. Transcribing documentation. Transcribing from old document to new CFETP is an administrative function, not a re-evaluation of training. Upon publication of a new CFETP, use the following procedures to transcribe:

2.5.3.1. Use the new CFETP to identify and certify current training requirements and to retain previous qualifications from the previous version.

2.5.3.2. Tasks previously certified and required in the current duty position circle the task (with the exception of electronic records) and enter the current date with the trainee and supervisor initials.

2.5.3.3. Tasks previously certified but not required in the current duty position (do not circle), transcribe only the previous certification date (no initials).

2.5.3.4. Annotate the AF Form 623a, (for example, "I certify the information contained in the CFETP dated XX was transcribed to the CFETP dated XX, and the trainee was given the superseded CFETP." Signed, dated, supervisor and trainee).

2.5.4. Maintenance of CFETPs for personnel in retraining status. Maintain CFETP from previous AFSC until commensurate skill level is achieved, then give the obsolete field CFETP to the individual.

2.5.5. Decertification and Recertification. When a supervisor determines an airman is unqualified on a task previously certified for their duty position, the supervisor erases the previous certification, or deletes certification when using automated system. Appropriate remarks pertaining to the reason for decertification are entered on the AF Form 623a.

2.5.6. Begin recertification (if required) following procedures in paragraph 2.5.1.

2.5.7. Training Standard. Tasks are trained and qualified to the go/no go level. Go means the individual can perform the task without assistance and meet local demands for accuracy, timeliness, and correct use of procedures.

2.6. Is a guide for development of promotion tests used in the Weighted Airman Promotion System (WAPS). Specialty Knowledge Tests (SKT) are developed at the USAF Occupational Measurement Squadron by senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the WAPS catalog. Individual responsibilities are listed in chapter 1 of AFI 36-2605, *Air Force Military Personnel Testing System*. WAPS is not applicable to the Air National Guard or Air Reserve Forces.

3. Recommendations. Comments and recommendations are invited concerning the quality of AETC training. A Training Feedback Hotline has been installed for the supervisors' convenience. For a quick response to concerns, call our Training Feedback Hotline at DSN 597-4566, fax us at DSN 597-3790, or e-mail us at 81trg-tget@keesler.af.mil. Reference this STS and identify the specific area of concern (paragraph, training standard element, etc).

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

MICHAEL E. ZETTLER, Lieutenant General, USAF
Deputy Chief of Staff /Installations & Logistics

Attachment:
3C0X1 Specialty Training Standard

PREFACE

NOTE 1: Users are responsible for annotating technical references to identify current references pending STS revision. Locate current Air Force publications at <http://www.e-publishing.af.mil/>. Locate AFSSIs at <https://www.afca.scott.af.mil/ip/> or in AFIND 5, DISA Circulars and Instructions at <https://disa-ca.dtic.mil/pubs/>, and Technical Orders (TO) at https://wpafbres34.wpafb.af.mil/aftox/AFTOX_DOCUMENTS/index.cfm.

NOTE 2: Knowledge and/or performance tasks are defined in the AFJQS. AFJQS items set the standard for qualification and certification and are mandatory for use in conjunction with this STS when applicable to the duty position.

NOTE 3: AFQTP 3CXXX-212A, Work Center Supervisor's Handbook is mandatory for upgrade to the 7-skill level in all 3CXXX career fields.

NOTE 4: All objectives are trained during wartime.

NOTE 5: When available, Core Automated Maintenance System (CAMS) is the primary means of collecting and maintaining information pertaining to OJT training and is mandatory for use by all 3CXXX career fields. You must have prior approval by the Air Force Career Field Manager before using a different data collection system. AFQTPs listed in the STS are generally handbooks which do not have task listings, therefore tracking through CAMS is not possible. Annotate completion of these products on the AF Form 623A.

PROFICIENCY CODE KEY		
	SCALE VALUE	DEFINITION: The individual
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (EXTREMELY LIMITED)
	2	Can do most parts of the task. Needs help only on hardest parts. (PARTIALLY PROFICIENT)
	3	Can do all parts of the task. Needs only a spot check of completed work. (COMPETENT)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (HIGHLY PROFICIENT)
*Task Knowledge Levels	a	Can name parts, tools, and simple facts about the task. (NOMENCLATURE)
	b	Can determine step by step procedures for doing the task. (PROCEDURES)
	c	Can identify why and when the task must be done and why each step is needed. (OPERATING PRINCIPLES)
	d	Can predict, isolate, and resolve problems about the task. (COMPLETE THEORY)
**Subject Knowledge Levels	A	Can identify basic facts and terms about the subject. (FACTS)
	B	Can identify relationship of basic facts and state general principles about the subject. (PRINCIPLES)
	C	Can analyze facts and principles and draw conclusions about the subject. (ANALYSIS)
	D	Can evaluate conditions and make proper decisions about the subject. (EVALUATION)
EXPLANATIONS * A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Examples: b and 1b) ** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task or for a subject common to several tasks. - This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC. X This mark is used alone in course columns to show that training is required, but not given, due to limitations in resources.		

THIS BLOCK IS FOR IDENTIFICATION PURPOSES ONLY Personal Data – Privacy Act of 1974		
PRINTED NAME OF TRAINEE (<i>Last, First, Middle Initial</i>)	INITIALS (<i>Written</i>)	SSN
PRINTED NAME OF TRAINER AND CERTIFYING OFFICIAL AND WRITTEN INITIALS		
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	
N/I	N/I	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
1. COMMUNICATIONS-COMPUTER SYSTEMS (C-CS) OPERATIONS CAREER FIELD TR: AFH 33-337; AFI 33-115 Vol 1&2; AFMAN 36-2108; AFVA 36-212; 3C0X1 CFETP	*											
1.1. Structure							A			-	-	
1.2. Progression within Air Force Specialty Code (AFSC)							A			B	-	
1.3. Air Force Specialty Code (AFSC)												
1.3.1. Duties							A			-	-	
1.3.2. Responsibilities							A			-	-	
1.3.3. Qualifications							A			-	-	
1.3.4. Customer relations							A			-	-	
1.3.5. Associated Communications & Information (C&I) AFSCs							A			B	-	
1.4. Roles and Mission							A			B	-	
1.5. Aerospace Expeditionary Force (AEF)							A			B	-	
2. SUPERVISION TR: AFI 36-2618; AFQTP 3CXXX-212A												
2.1. Brief Newly Assigned Personnel												
2.1.1. Safety							-			-	-	
2.1.2. Mission							-			-	-	
2.1.3. Responsibilities							-			-	-	
2.1.4. Recognition programs TR: AFI 36-2845							-			-	-	
2.2. Interpret for Subordinates												
2.2.1. Policies							-			-	-	
2.2.2. Directives							-			-	-	
2.2.3. Procedures							-			-	-	
2.3. Plan and Schedule												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
2.3.1. Work assignments							-			-	-	
2.3.2. Shifts							-			-	-	
2.3.3. Priorities							-			-	-	
2.4. Establish												
2.4.1. Work methods							-			-	-	
2.4.2. Controls							-			-	-	
2.4.3. Performance standards							-			-	-	
2.5. Brief Subordinates on Local and Standard Procedures							-			-	-	
2.6. Provide Feedback and Evaluate Work Performance TR: AFI 36-2406							-			-	-	
2.7. Initiate Action to Correct Substandard Personnel Performance TR: AFI 36-2907, 36-3208							-			-	-	
2.8. Rate Personnel Performance							-			-	-	
2.9. Counsel Personnel on Personal and Military Related Problems							-			-	-	
2.10. Identify												
2.10.1. Personnel requirements							-			-	-	
2.10.2. Equipment requirements							-			-	-	
2.11. Resolve Technical Problems Encountered by Subordinates							-			-	-	
2.12. Observe Equipment Operation to Ensure Conformance with Established Standards							-			-	-	
2.13. Demonstrate how to Operate Equipment							-			-	-	
2.14. Facility Maintenance												
2.14.1. Plan							-			-	-	
2.14.2. Schedule							-			-	-	
2.14.3. Supervise							-			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
2.15. Operating Instructions (OI)												
2.15.1. Prepare local operating procedures							-			-	-	
2.15.2. Issue							-			-	-	
2.15.3. Review							-			-	-	
2.16. Self-Inspections/ Quality Indicators												
2.16.1. Prepare							-			-	-	
2.16.2. Review							-			-	-	
2.16.3. Issue							-			-	-	
2.16.4. Conduct							-			-	-	
2.16.5. Follow-up							-			-	-	
2.17. Develop Budget Input												
2.17.1. Analyze costs and utilization							-			-	-	
2.17.2. Create budget							-			-	-	
2.18. Equipment Utilization												
2.18.1. Plan							-			b	-	
2.18.2. Schedule							-			b	-	
2.18.3. Supervise							-			b	-	
2.19. Equipment Requirements TR: AFI 23-110, V2, part 13, Chap 8; DISAC 310-130-1, (https://disa-ca.dtic.mil/pubs/circulars/dc3101301/dc3101301_basic.html)												
2.19.1. Acquire							-			A	2b	
2.19.2. Upgrade							-			A	-	
2.19.3. Replace							-			A	-	
2.19.4. Discontinue							-			A	-	
2.20. Accountable Records												
2.20.1. Hardware							-			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
2.20.2. Software (e.g. license management)							A			B	-	
2.21. Recommend System Efficiency Options (e.g. network, TBMCS, TCC)												
2.21.1. Production							-			A	-	
2.21.2. Performance history												
2.21.2.1. Equipment operation							-			A	-	
2.21.2.2. Equipment maintenance							-			A	-	
2.22. Vendor Contracts												
2.22.1. Equipment costs							-			-	-	
2.22.2. Maintenance charges or credits							-			-	-	
2.22.3. Procurement of:												
2.22.3.1. Equipment							-			-	2b	
2.22.3.2. Maintenance							-			-	-	
2.22.3.3. Software							-			-	2b	
2.22.3.4. Services							-			-	-	
2.22.4. Discontinuance of:												
2.22.4.1. Equipment							-			-	-	
2.22.4.2. Services							-			-	-	
2.22.5. Contractual obligations							-			-	-	
2.22.6. Maintenance agreements							-			-	-	
2.22.7. Compliance with maintenance agreements							-			-	-	
3. TRAINING TR: AFIs 36-2201, vol 3&5, 36-2233; AFMANs 36-2236; AFQTP 3CXXX-212A												
3.1. Evaluate Personnel for Need of Training							-			-	-	
3.2. Enlisted Specialty Training (EST) Management												
3.2.1. Prepare job qualification standard (JQS)							-			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
3.2.2. Procure training material							-			-	-	
3.2.3. Motivate trainers and trainees							-			-	-	
3.2.4. Develop training materials							-			-	-	
3.2.5. Counsel trainees on training progress							-			-	-	
3.2.6. Monitor effectiveness of:												
3.2.6.1. Career knowledge upgrade training progress							-			-	-	
3.2.6.2. Job proficiency upgrade training							-			-	-	
3.2.6.3. Qualification training							-			-	-	
3.3. Maintain Training Records							-			-	-	
3.4. Evaluate Effectiveness of Training Programs							-			-	-	
3.4.1. Certification and Stan/Eval							-			-	A	
3.5. Recommend Personnel for Training							-			-	-	
4. OPERATIONAL RISK MANAGEMENT (ORM) TR: AFIs 90-901, 91-301, 91-302; AFOSH STDs 91-50, 91-64	*											
4.1. Hazards of AFSC 3C0X1(e.g. high voltages)							A			-	-	
4.2. AFOSH Standards for AFSC							-			-	-	
4.3. Safety Practices							A			-	-	
4.4. Clean Work Environment							A			-	-	
5. C-CS ADMINISTRATIVE FUNCTIONS TR: AFINDs 2, 5, 8; AFIs 33-Series; AFMAN 37-139; DISAN 210-0-1												
5.1. Publications												
5.1.1. Air Force Manuals (AFMAN)							A			-	-	
5.1.2. Air Force Policy Directives (AFPD)							A			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
5.1.3. Air Force Instructions (AFI)							A			-	-	
5.1.4. Air Force Pamphlets (AFPAM)							A			-	-	
5.1.5. Joint Army Navy Air Force Publications (JANAP)							-			-	-	
5.1.6. Allied Communications Publications (ACP)							-			-	-	
5.1.7. Operating Instructions (OI)							A			-	-	
5.1.8. Commercial/vendor publications							A			-	-	
5.1.9. DISA Publications							A			-	-	
5.1.10. Technical Orders (TO)							A			-	-	
5.1.11. Military Standard (MIL STD)							A			B	-	
5.2. Publications Handling												
5.2.1. Order documents and changes							-			-	-	
5.2.2. Post changes							-			-	-	
5.3. Locate Publication Numbers and Titles Using Indexes							b			-	-	
5.4. Operating Procedures and Technical Data	*						b			-	-	
5.5. Supply Functions												
5.5.1. Maintain accounts							-			-	-	
5.5.2. Keep records							-			-	-	
5.6. Equipment Records							A			B	-	
5.7. Office Records Management							-			-	-	
5.8. System Software Support							A			B	-	
5.9. Magnetic Media Handling and Disposition							-			-	-	
6. C4I SECURITY TR: ACP 122; AFDIR 33-303; AFIs 33-110, 33-129, 33-206, 33-201, 33-219, 33-332; AFMAN 33-326; AFSSI 5021; DISAC 310-90-1; DOD 5200.1-R												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
6.1. Operations Security (OPSEC) TR: AFI 10-1101; AFPD 10-11												
6.1.1. Definition	*						A			B	-	
6.1.2. Background							A			B	-	
6.1.3. Expanded OPSEC Training focused on Information Security and Computer Security to other security programs							A			B	C	
6.1.4. Vulnerabilities	*						A			-	B	
6.1.5. Critical indicators							A			-	B	
6.1.6. Data/Information aggregation							-			-	B	
6.2. Information Security TR: AFI 31-401; AFPD 31-4, 33-2												
6.2.1. Classification process							-			-	-	
6.2.2. Declassification process							-			-	-	
6.2.3. Information safeguards	*											
6.2.3.1. Unclassified												
6.2.3.1.1. Privacy Act							A			B	-	
6.2.3.1.2. For Official Use Only (FOUO)							A			B	-	
6.2.3.1.3. Sensitive Unclassified							A			B	-	
6.2.3.2. Classified							A			B	-	
6.3. Communications Security (COMSEC) TR: AFI 33-201, 33-211, 33-212; AFPD 33-2												
6.3.1. Definition	*						A			B	-	
6.3.2. Vulnerabilities	*						A			B	-	
6.3.3. Critical information	*						A			B	-	
6.3.4. Safeguarding information	*						b			b	-	
6.3.5. COMSEC equipment security							A			B	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
6.3.6. COMSEC equipment use												
6.3.6.1. Operate on-line							-			-	-	
6.3.6.2. Operate off-line							-			-	-	
6.3.7. Identify/report insecurities	*						b			b	-	
6.4. Emission Security (EMSEC) TR: AFI 33-203; AFD 33-2												
6.4.1. Definition	*						A			B	-	
6.4.2. Notifications							b			b	-	
6.5. Computer Security (COMPUSEC) TR: AFI 31-401, 33-202, 33-207; AFD 33-2; AFSSI 5021												
6.5.1. Definition	*						A			B	-	
6.5.2. Vulnerabilities	*						A			B	-	
6.5.3. Processing classified information							b			b	-	
6.5.4. Identify/report insecurities	*						b			b	-	
6.5.5. Risk analysis							-			B	-	
6.5.6. Accreditation							-			B	-	
6.5.7. Certification							-			B	-	
6.5.8. Control access							-			-	-	
6.5.9. Conduct audit							-			-	-	
6.6. Physical Security TR: AFI 33-101; AFD 33-1												
6.6.1. Definition	*						A			A	-	
6.6.2. Secure area access management							A			B	-	
6.6.3. Facility security requirements							A			B	-	
6.6.4. Classified material control												
6.6.4.1. Storage							A			B	-	
6.6.4.2. Shipment							A			B	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
6.6.4.3. Handling							A			B	-	
6.6.4.4. Destruction							A			B	-	
6.6.4.5. Classified waste							A			B	-	
6.6.5. Identify/report violations procedures	*						b			b	-	
6.7. Information Assurance Awareness Program TR: AFI 33-204	*											
6.7.1. Information Awareness (IA)							-			-	-	
6.7.2. Threats and vulnerabilities							A			B	-	
6.7.2.1. Computer Virus Theory and Procedures							-			-	b	
6.7.2.1.1. Install/Operate Virus Scanners							-			-	2b	
6.7.3. Identify/report insecurities							b			b	-	
6.7.4. Protective measures							b			b	-	
6.8. Air Force COMSEC Accounting Procedures TR: AFJQS 3C0X1-211U												
6.8.1. Process COMSEC materials												
6.8.1.1. Request							-			b	-	
6.8.1.2. Receive							-			b	-	
6.8.1.3. Transfer							-			b	-	
6.8.1.4. Inventory							b			b	-	
6.8.1.5. Destroy							b			b	-	
6.8.1.6. Local Management Device/Key processor and Air Force Electronic Keying Management System (AFEKMS) TR: AFSSI3031							-			-	-	
6.8.2. Account record files							-			A	-	
6.8.3. Emergency action plans							A			B	-	
6.8.4. Incident report preparation TR: AFI 33-212							-			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
6.8.5. User account inspections							-			A	-	
6.8.6. Two-person integrity							A			B	-	
6.8.7. Two-person control							A			B	-	
6.8.8. Public Keying Infrastructure (PKI)							A			B	-	
6.8.9. FORTEZZA cards TR: AFSSI 3034							A			B	-	
6.8.10. Certification Authority Workstation (CAW) TR: AFSSI 3039							-			-	-	
7. INFORMATION PROTECTION (IP) OPERATIONS TR: ACP 122; AFDIR 33-303; AFH 31-602; AFIs 10-1101, 33-202, 33-203, 33-204, 33-206, 33-207, , 33-332; ; AFMAN 33-223, AFSSI 5020, 5021, AFPD 33-2; DISAC 310-90-1;; TO 31S5-4-2987-1, AFI 33-272(S), 33-115												
7.1. Identification and Authentication							A			B	-	
7.2. Remanence Security							A			B	-	
7.3. Certification and Accreditation (e.g. System/Network)							A			B	b	
7.4. Event Response												
7.4.1. Reporting Hierarchy TR: AFSSI 5021							-			A	B	
7.4.2. INFOCON							-			A	B	
7.5. Implement Security Patches							-			-	2b	
7.6. Configure malicious logic protection devices (e.g. anti virus, SMTP relay, MIME filters)							-			-	-	
7.7. Defensive in-depth TR: CJCSM 6510.01 (enclosure B)												
7.7.1. Concept							-			-	A	
7.7.2. Tactics, Techniques, and Procedures							-			-	b	
7.7.3. Defensive Counter Information (DCI)							-			-	B	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
7.8. Base Information Protection (BIP)												
7.8.1. Boundary protection							A			B	-	
7.8.2. Intrusion/misuse detection							A			B	C	
7.8.3. Internal control							A			B	-	
7.8.4. Access preservation							A			B	-	
7.8.5. Authentication/ encryption							A			B	-	
7.8.6. Security tools (e.g. firewalls, TCP Wrappers)							A			B	-	
7.8.7. Maintain Situational Awareness							-			-	2b	
7.8.8. Analysis and Reach back							-			-	2b	
7.9. Information Warfare Concepts Beyond Computer Network Defense (CND)							-			-	2b	
7.10. Install/Operate Virtual Private Network (VPN) and Secure Networking							-			-	2b	
7.11. Implement Incident Response							-			-	2b	
8. INFORMATION TECHNOLOGY SYSTEMS FUNDAMENTALS TR: AFDIR 33-303; AFIs 33-Series												
8.1. Hardware												
8.1.1. Principles	*						A			B	-	
8.1.2. Central Processing Unit (CPU)	*						A			B	-	
8.1.3. Computer memory	*						A			B	-	
8.1.4. Input/output (I/O)												
8.1.4.1. Process												
8.1.4.1.1. Controller							A			-	-	
8.1.4.1.2. Bus							A			-	-	
8.1.4.2. Devices												
8.1.4.2.1. Monitors							A			-	-	
8.1.4.2.2. Keyboard							A			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A		B		C	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
8.1.4.2.3. Pointer devices							A			-	-	
8.1.4.2.4. Floppy disks/ diskettes							A			-	-	
8.1.4.2.5. Fixed/removable hard disks							A			-	-	
8.1.4.2.6. Tapes (e.g. back-up, storage)							A			-	-	
8.1.4.2.7. Optical storage media							A			-	-	
8.1.4.2.8. Printers							A			-	-	
8.1.4.2.9. Optical scanning devices							A			-	-	
8.1.5. Power supply							A			-	-	
8.2. Software												
8.2.1. Operating systems	*						A			B	-	
8.2.2. Programming languages							A			B	-	
8.2.3. Graphical User Interfaces (GUI)							A			B	-	
8.2.4. Application software												
8.2.4.1. Word processors							A			-	-	
8.2.4.2. Data base							A			-	-	
8.2.4.3. Spreadsheet							A			-	-	
8.2.4.4. Communications							A			-	-	
8.2.4.5. Special purpose (e.g. Adobe, Form Flow, Presentation)							A			-	-	
8.2.4.6. Use Anti-virus Software	*						2b			b	-	
8.3. Computer Operations												
8.3.1. Digital numbering systems (binary, octal, hexadecimal)							A			B	-	
8.3.2. Data representation												
8.3.2.1. Bit							A			B	-	
8.3.2.2. Byte							A			B	-	
8.3.3. Data flow							A			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
8.3.4. Memory structure (e.g. buffers)							A			B	-	
8.3.5. Interrupt requests							A			B	-	
8.3.6. Drivers							A			B	-	
8.3.7. BIOS							A			B	-	
8.3.8. PROMs							A			B	-	
8.3.9. CMOS							A			B	-	
8.4. Mainframe Computers							A			-	-	
8.5. Mini (multi-user) Computers (e.g. SUN SPARC)							A			-	-	
8.6. Microcomputers (include laptops, portables)							A			B	-	
9. NETWORKED SYSTEMS TR: AFIs, 33-112, 33-115 Vol 1&2, 33-119, 33-207												
9.1. Overview/Definition	*						A			B	-	
9.2. Logon/Logoff							2b			-	-	
9.3. Introduction to UNIX												
9.3.1. Manage files and directories							2b			b	-	
9.3.2. Use communication utilities							2b			b	-	
9.3.3. Use ASCII text editor							2b			b	-	
9.3.4. Develop shell scripts							2b			b	-	
9.4. Network Operations												
9.4.1. Topologies	*						A			B	-	
9.4.2. Addressing	*						A			B	-	
9.4.3. Transmission media	*						A			B	-	
9.4.4. Interface protocols							B			B	-	
9.4.5. Implement network installation procedures							b			b	2b	
9.4.5.1. Implement Patching Policies and Techniques							-			-	2b	
9.4.6. Configure												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
9.4.6.1. Cabling							2b			b	-	
9.4.6.2. Workstation							2b			b	-	
9.4.6.3. Printers							2b			b	-	
9.4.7. Network operating system user functions												
9.4.7.1. Transfer files							2b			b	-	
9.4.7.2. Spooling concept							A			B	-	
9.4.7.3. Electronic mail (e-mail)							2b			-	-	
9.4.8. Perform Network/System Auditing							-			-	2b	
9.5. System Administration												
9.5.1. Startup and shutdown							b			b	-	
9.5.2. File management procedures							b			b	-	
9.5.3. User accounts												
9.5.3.1. Create							2b			b	-	
9.5.3.2. Modify							2b			b	-	
9.5.3.3. Delete							2b			b	-	
9.5.4. Assign privileges							2b			b	-	
9.5.5. Install software							b			b	-	
9.5.6. Network Operating System (OS) Software												
9.5.6.1. Install							2b			-	-	
9.5.6.2. Upgrade							2b			b	-	
9.5.6.3. Configure							2b			b	-	
9.5.6.4. Use commands							2b			-	-	
9.5.7. Administer print services							2b			b	-	
9.5.8. System optimization							2b			b	-	
9.5.9. Install network services							b			b	2b	
9.6. Network Management												
9.6.1. Overview												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
9.6.1.1. Fault management (i.e. outages, system degradation)							A			B	-	
9.6.1.2. Configuration							A			B	-	
9.6.1.3. Security							A			B	-	
9.6.1.4. Performance							A			B	-	
9.6.1.5. Accounting							A			B	-	
9.6.1.6. Internet services							A			B	-	
9.6.1.7. Test equipment (e.g. sniffer, protocol analyzer, cable tester)							-			A	-	
9.6.1.8. Reporting/Notification TR: AFI 10-201, 33-115, AFSSI 5021							-			-	-	
9.6.2. Network Control Center (NCC)/Network Operations and Security Center (NOSC) concepts												
9.6.2.1. Crew positions							A			B	-	
9.6.2.2. Specific area support							A			B	-	
9.6.2.3. NCC/NOSC management							-			-	-	
9.6.3. Use network management software												
9.6.3.1. Customize system							2b			b	-	
9.6.3.2. Monitor system performance							2b			b	-	
9.6.4. Perform help desk functions							2b			b	-	
9.6.5. Distributive print							A			b	-	
9.6.6. Planning (e.g. Disaster/contingency/operational/crisis)							-			-	B	
9.6.7. Diagnostic												
9.6.7.1. Theory							A			A	B	
9.6.7.2. Procedures							2b			b	-	
9.6.8. Terminal emulation software							-			B	-	
9.7. E-mail Server Management												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
9.7.1. Perform e-mail server installation							2b			b	-	
9.7.2. Perform e-mail server configuration							2b			b	-	
9.8. Data Backup												
9.8.1. Theory							A			B	-	
9.8.2. Procedures							-			b	-	
9.9. Network Hardware												
9.9.1. Terminal equipment							A			B	-	
9.9.2. Modems/DSU/CSU							A			B	-	
9.9.3. Switching devices (e.g. ATM, ethernet)							A			B	-	
9.9.4. Concentrators							A			B	-	
9.9.5. Hubbing devices							A			B	-	
9.9.6. Transceivers							A			B	-	
9.9.7. Network Interface Card (NIC)							A			B	-	
9.9.8. Bridges							A			B	-	
9.9.9. Repeaters							A			B	-	
9.9.10. Routers							A			B	-	
9.9.11. Gateway							A			B	-	
9.9.12. Server/processor												
9.9.12.1. Database							A			B	-	
9.9.12.2. File (ex. ftp)							A			B	-	
9.9.12.3. Application							A			B	-	
9.9.12.4. Communication (e.g. RAS, RASP)							A			B	-	
9.9.12.5. Print							A			B	-	
9.9.12.6. Proxy							A			B	-	
9.9.12.7. Web							A			B	-	
9.9.12.8. Storage Devices (e.g. NAS, SAN)							A			-	-	
9.10. System Restoration												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
9.10.1. Fault isolation							2b			b	2b	
9.10.2. Perform electrostatic discharge (ESD) procedures							-			-	-	
9.10.3. Remove and replace subassemblies							-			-	-	
10. DEPLOYABLE COMMUNICATIONS TR: ACPs 117, 121, 122, 131; AFIs 33-112, 33-113; AFMAN 10-201, 10-401, 10-403; 23-210 AFJQS 3C0X1-213S; DISAC 310-D70-30; JANAPs 128, 201; CJCSM 6231.01B												
10.1. Deployable Communications Systems TR: AFI 33-116; TO 31R2-2TSC107-1												
10.1.1. Initial communications support (e.g. TDC, NCC-D, ICE, SNAP)												
10.1.1.1. Mission							A			B	-	
10.1.1.2. Employment concepts							A			B	-	
10.1.1.3. Capabilities							A			B	-	
10.1.1.4. Interfacing considerations							A			B	-	
10.1.2. Sustained communications support (e.g. Tri-Service Tactical Communications (TRI-TAC), TDC)												
10.1.2.1. Mission							A			B	-	
10.1.2.2. Employment concepts							A			B	-	
10.1.2.3. Capabilities							A			B	-	
10.1.2.4. Interfacing considerations							A			B	-	
10.1.3. Mobile/portable C-CS												
10.1.3.1. Air Control System (ACS)							A			B	-	
10.1.3.2. TRI-TAC							A			B	-	
10.1.3.3. Systems operations elements												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
10.1.3.3.1. Initial communications package (WICP/MICK)							A			B	-	
10.1.3.3.2. Theater Deployable Communications (TDC)							A			B	-	
10.1.4. Unit Type Code (UTC)	*											
10.1.4.1. Equipment							A			B	-	
10.1.4.2. Personnel							A			B	-	
10.1.5. Managing Unit Deployment Mission Tasking							-			-	B	
11. Telecommunications Centers (TCC)												
11.1. Hardware							-			-	-	
11.2. Software							-			-	-	
11.3. Output Product Distribution Procedures												
11.3.1. Output preparation												
11.3.1.1. Identify delivery destination							-			-	-	
11.3.1.2. Notify customers							-			-	-	
11.3.1.3. Produce hard copy as required							-			-	-	
11.3.2. Maintain output records							-			-	-	
11.3.3. Control distribution							-			-	-	
11.4. Contingency Processing Procedures												
11.4.1. Alternate site processing							-			-	-	
11.4.2. Alternate routing							-			-	-	
11.5. Service Messages												
11.5.1. Format (e.g. abbreviated plain dress)							-			-	-	
11.5.2. Operating signals							-			-	-	
11.5.3. Response												
11.5.3.1. Documenting							-			-	-	
11.5.3.2. Follow-up suspenses							-			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
11.6. Outgoing Narrative Messages												
11.6.1. Terms												
11.6.1.1. File time							-			-	-	
10.6.1.2. Station serial number							-			-	-	
11.6.1.3. Routing indicators							-			-	-	
11.6.1.4. Transmission release codes							-			-	-	
11.6.2. Inspect form for:												
11.6.2.1. Releasing authority							-			-	-	
11.6.2.2. Classification							-			-	-	
11.6.2.3. Precedence							-			-	-	
11.6.2.4. Date time group							-			-	-	
11.6.2.5. Follow special instructions							-			-	-	
11.6.3. Message correction notice							-			-	-	
11.6.4. Prepare plain dress messages							-			-	-	
11.7. Minimize Procedures							-			-	-	
11.8. Messages Requiring Special Handling							-			-	-	
12. MICROCOMPUTERS (WORKSTATIONS/ SERVERS) TR: AFIs 33-112, 33-113, 33-114, 33-202; IEEE/EIAs 122207, 122207.0, 122207.1												
12.1. Computer Software												
12.1.1. Install												
12.1.1.1. Operating systems												
12.1.1.1.1. Standalone (e.g. DOS, Windows 9X, 2000, Win NT)							-			-	-	
12.1.1.1.2. Network (e.g. UNIX, Windows 2000, Win NT, SUN OS)							-			-	-	
12.1.1.2. Application software												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
12.1.1.2.1. Functional or special systems (e.g. utilities, TBM, GCCS, etc.)							-			-	-	
12.1.1.2.2. Information Protect (IP) software (e.g. ASIMS, TCP wrappers, anti-virus)							-			-	-	
12.1.1.2.3. Messaging (e.g. E-mail, DMS, etc.)							-			-	-	
12.1.1.2.4. Office automation (e.g. MS Office, etc.)							-			-	-	
12.1.2. Use UNIX software												
12.1.2.1. Shell types/commands							-			-	-	
12.1.2.2. Hierarchical file system							-			-	-	
12.1.2.3. Communication utilities							-			-	-	
12.1.2.4. VI editor							-			-	-	
12.1.3. Databases (e.g. Oracle, Sybase)												
12.1.3.1. Facts and principles												
12.1.3.1.1. Flat file							-			-	-	
12.1.3.1.2. Relational							-			-	-	
12.1.3.2. Relational database structures							-			-	-	
12.1.3.3. Use SQL												
12.1.3.3.1. Query							-			-	-	
12.1.3.3.2. Manipulate							-			-	-	
12.1.3.3.3. Generate reports							-			-	-	
12.1.4. Configure software												
12.1.4.1. Operating systems												
12.1.4.1.1. Standalone							-			-	-	
12.1.4.1.2. Network							-			-	-	
12.1.4.1.3. UNIX												
12.1.4.1.3.1. Partition disk drive							-			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
12.1.4.1.3.2. Set up host name and address							-			-	-	
12.1.4.1.3.3. Set up Internet Protocol (IP) addresses							-			-	-	
12.1.4.2. Application software												
12.1.4.2.1. Functional or special systems (e.g. Utilities, TBM, GCCS, etc.)							-			-	-	
12.1.4.2.2. Messaging (e.g. MS Outlook, etc.)							-			-	-	
12.1.4.2.3. Office automation (e.g. MS Office, etc.)							-			-	-	
12.2. System Restoration												
12.2.1. Fault isolation							B			b	-	
12.2.2. Perform electrostatic discharge (ESD) procedures							a			b	-	
12.2.3. Remove and replace subassemblies							a			b	-	
13. MAINFRAME SYSTEMS TR: AFIs 33-112, 33-113, 33-202; AFMAN 171-110 Vol 2												
13.1. Check Environmental Status							-			-	-	
13.2. Console Keyboard Operations												
13.2.1. Initiate programs							-			-	-	
13.2.2. Execute commands							-			-	-	
13.2.3. Respond to system message displays							-			-	-	
13.2.4. Adjust run sequence for most efficient system operation							-			-	-	
13.2.5. Monitor quality of output products							-			-	-	
13.3. Load												
13.3.1. Operating system							-			-	-	
13.3.2. System files							-			-	-	
13.3.3. Programs							-			-	-	
13.3.4. Databases							-			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
13.4. Start System							-			-	-	
13.5. Shutdown System							-			-	-	
13.6. System Peripherals Operations												
13.6.1. Operate magnetic tape drives							-			-	-	
13.6.2. Operate line printers							-			-	-	
13.7. Load Patches							-			-	-	
13.8. Abnormal Operating Situations												
13.8.1. Isolate causes of malfunctions							-			-	-	
13.8.2. Difficulty reporting procedures							-			-	-	
13.8.3. Customer inquiries							-			-	-	
13.8.4. Recoveries							-			-	-	
13.8.5. Coordinate with maintenance personnel							-			-	-	
13.9. Job Control Execution Concepts							-			-	-	
13.10. System Performance							-			-	-	
13.11. System Administration							-			-	-	
14. INFORMATION TECHNOLOGY EQUIPMENT MANAGEMENT FUNCTIONS TR: ACP 121; AFIs 31-101, 33-102, 33-103, 33-104, 33-112, 33-114; AFQTP 3CXXX-213N												
14.1. Equipment Control Officer (ECO) Responsibilities							-			-	-	
14.2. Information Technology Equipment Accounting System (e.g. Information Processing Management System .IPMS, AFEMS)							-			-	-	
14.3. Equipment Custodian (EC) Responsibilities							-			-	-	
14.4. Inventory							-			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
14.5. Coordinate Equipment Repair							-			-	-	
14.6. Accountable Records												
14.6.1. Hardware							-			-	-	
14.6.2. Software							-			-	-	
15. DEFENSE MESSAGING SYSTEMS (DMS) OPERATIONS TR: AF DMS CONOPS; AFI 33-119, 33-127; AFMAN 33-128; DISAC 310-D70-30; JANAP 128												
15.1. Definitions							A			B	-	
15.2. Operate System												
15.2.1. Message Transfer Agent (MTA) (e.g. SMTA, BMTA)							-			-	-	
15.2.2. Management workstation (MWS)							-			-	-	
15.2.3. Message Stores (MS)							-			-	-	
15.2.4. Directory System Agent (DSA)							-			-	-	
15.2.5. Mail List Agent (MLA)							-			-	-	
15.2.6. Administrator Directory User Agent (ADUA)							-			-	-	
15.2.7. Integrated Directory User Agent (IDUA)							-			-	-	
15.2.8. User Agents (UA)							-			-	-	
15.2.9. Multi-Function Interpreter (MFI)							-			-	-	
15.2.10 Directory Information Tree												
16. LOCAL CONTROL CENTER (LCC)/REGIONAL NETWORK OPERATIONS AND SECURITY CENTER (RNOSC)/AREA CONTROL CENTERS/GLOBAL OPERATIONS AND SECURITY CENTER (GOSC)												
16.1. Registration							-			-	-	

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A 3 SKILL LEVEL		B 5 SKILL LEVEL		C 7 SKILL LEVEL	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
16.2. Security							-			-	-	
16.3. Operations							-			-	-	
16.4. System administration							-			-	-	
16.5. System analysis							-			-	-	
16.6. Customer service							-			-	-	
16.7. Technical support							-			-	-	
16.8. Mail list management							-			-	-	
16.9. Directory administration							-			-	-	
17. Oversight Of Information Operation TR: USC Title 10,18 and 50							A			B	B	
200. AIR FORCE JOB QUALIFICATION STANDARDS APPLICABLE TO AFSC 3C0X1. TR: AFI 36-2233, CFETP 3C0X1 (See Note 2)												
200.3. AFJQS 3CXXX-200C, Position Certification for Network Professionals												
206.16. Communications Central												
206.16.1. AFQTP XXXXX-206P, AN/TSC-107 Communications Central (Quick Reaction Package) Familiarization Handbook												
211.18.1. Computer Security												
211.18.1.1. AFQTP 3C0X1-211RA, Computer Security Manager's Handbook												
211.21. AFJQS 3C0X1-211U, COMSEC Account Management												
212.1. Work Center Supervisor's												
212.1.1. AFQTP 3CXXX-212A, Work Center Supervisor's Handbook (See Note 3)												
212.2. C4 Systems Technology												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A		B		C	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
212.2. AFQTP 3CXXX- 212B, C4 Systems Technology Handbook												
212.3. C4 Information Systems												
212.3.1. AFQTP XXXXX- 212C, C4 Information Systems Familiarization Handbook												
213.14. Automated Data Processing Equipment (ADPE) Management												
213.14.1. AFQTP 3CXXX- 213N, Automated Data Processing Equipment (ADPE) Management Handbook												
213.19. AFJQS 3C0X1- 213S, Message Distribution Terminal												
230.1. NCC Information Protection Operations												
230.1.1. AFQTP 3C0X1- 230A, NCC Information Protection Operations Handbook												
230.2. Defense Message System												
230.2.1. AFQTP 3C0X1- 230B, Defense Message System Handbook												
230.2.1. AFJQS 3C0X1- 230BA, Defense Message System												
230.3. AFJQS 3CXXX- 230C, Sidewinder												
230.4. AFJQS 3C0X1- 230D, Theater Battle Management Core System (Unit Level)												
230.5. AFJQS 3CXXX- 230E, HP Open View												
230.10. AFJQS 3C0X1- 230J, Telecommunications Center Operations												
230.18.1. Theater Deployable Communications Integrated Communications Access Package (TDC ICAP) Systems												

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED					
		A	B	C	D	E	A		B		C	
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
230.18.1.1. AFQTP XXXXX-230RA, Theater Deployable Communications Integrated Communications Access Package (TDC ICAP) Systems Handbook												
230.18.2. AFJQS XXXXX- 230RB, TDC ICAP Voice Network												
230.18.3. AFJQS XXXXX- 230RC, TDC ICAP Data Network												
230.18.4. AFJQS XXXXX- 230RD, TDC ICAP Transmission Network												
230.18.5. AFJQS XXXXX- 230RE, TDC ICAP Message Network												
230.20. AFJQS 3C0X1- 230T, Remedy												
230.21. AFJQS 3CXXX- 230U, Network Protocol Analyzer												

Section B - Course Objective List

4. Measurement. Each objective is indicated as follows: W indicates task or subject knowledge which is measured using a written test, PC indicates required task performance which is measured with a performance progress check, and PC/W indicates separate measurement of both knowledge and performance elements using a written test and a progress check.

5. Standard. The standard is 70% on written examinations. Standards for performance measurement are indicated in the objective and delineated on the individual progress checklist. Instructor assistance is provided as needed during the progress check, and students may be required to repeat all or part of the behavior until satisfactory performance is attained.

6. Proficiency Level. Most task performance is taught to the "2b" proficiency level which means the student can do most parts of the task, but does need assistance on the hardest parts of the task (partially proficient). The student can also determine step-by-step procedures for doing the task.

7. Course Objectives. These objectives are listed in the sequence taught by Block of Instruction. Because the communications career field is ever changing, we are providing a website with a "living" course objective list (COL). As changes are made to the courses they will also be made to the website. Use the following link to get started, then navigate to the COL by selecting the 81 TRW, 81 TRG, and finally the 336 TRS to locate the COL for the C-CS Operations courses. <https://wwwmil.keesler.af.mil/>.

Section C - Support Materials

8. The following list of support materials is not all-inclusive; however, it covers the most frequently referenced areas. The most current products can be found at the 81 TRSS/TSQ web page, and are available for download from the web site at <https://wwwmil.keesler.af.mil/81trss/qflight/index.htm>. These training products are also listed in AFIND 8, though not as current. Procedures for requesting product development are found in AFI 36-2233.

8.1. AFJQs/AFQTPs applicable to AFSC 3C0X1:

<u>Publication No.</u>	<u>Pseudo File Code</u>	<u>Publication Title</u>
AFQTP 3C0X1-211RA	N/A	Computer Security Manager's Handbook
AFJQS 3C0X1-211U	3C0X1-211.21	COMSEC Account Management
AFJQS 3C0X1-213S	3C0X1-213.19	Message Distribution Terminal
AFQTP 3C0X1-230A	N/A	NCC Information Protection Operations Handbook
AFQTP 3C0X1-230B	N/A	Defense Message System Handbook
AFJQS 3C0X1-230BA	3C0X1-230.2.1	Defense Message System
AFJQS 3C0X1-230D	3C0X1-230.4	Theater Battle Management Core System (Unit Level)
AFJQS 3C0X1-230J	3C0X1-230.10	Telecommunications Center Operations
AFJQS 3C0X1-230T	3C0X1-230.20	Remedy
AFJQS 3CXXX-230U	3C0X1-230.21	Network Protocol Analyzer

8.2. Additional AFJQS/AFQTP generic training products applicable to this specialty:

<u>Publication No.</u>	<u>Pseudo File Code</u>	<u>Publication Title</u>
AFJQS 3CXXX-200C	3CXXX-200.3	Position Certification for Network Professionals
AFQTP XXXXX-206P	N/A	AN/TSC-107 Communications Central (Quick Reaction Package) Familiarization Handbook
AFQTP 3CXXX-212A	N/A	Work Center Supervisor's Handbook
AFQTP 3CXXX-212B	N/A	C4 Systems Technology Handbook
AFQTP XXXXX-212C	N/A	C4 Information Systems Familiarization Handbook
AFQTP 3CXXX-213N	N/A	Automated Data Processing Equipment (ADPE) Management Handbook

<u>Publication No.</u>	<u>Pseudo File Code</u>	<u>Publication Title</u>
AFJQS 3CXXX-230C	3CXXX-230.3	Sidewinder
AFJQS 3CXXX-230E	3CXXX-230.5	HP Open View
AFJQS 3CXXX-230H	N/A	Cisco Works
AFJQS 3CXXX-230W	3CXXX-230.23	Windows 2000
AFQTP XXXXX-230RA	N/A	Theater Deployable Communications Integrated Communications Access Package (TDC ICAP) Systems Handbook
AFJQS XXXXX-230RB	XXXXX-230.18.2	TDC ICAP Voice Network
AFJQS XXXXX-230RC	XXXXX-230.18.3	TDC ICAP Data Network
AFJQS XXXXX-230RD	XXXXX-230.18.4	TDC ICAP Transmission Network
AFJQS XXXXX-230RE	XXXXX-230.18.5	TDC ICAP Message Network

8.3. AFJQSS/AFQTPs currently in/scheduled for development:

<u>Publication No.</u>	<u>Publication Title</u>
AFJQS3C0X1-230DB	Theater Battle Management Core System (Force Level)
AFJQS3C0X1-230GA	Symantec Intruder Alert
AFJQS3C0X1-230J	Telecommunications Center Operations
AFJQS3C0X1-211U	COMSEC Account Management
AFQTP 3CXXX-230V	Enterprise Tracking and Notification Graphic User Interface

Section D - Training Course Index

9. Purpose. This section of the CFETP identifies training courses available for continuation/ supplemental training. For information on all formal courses, refer to the Air Force Education and Training Course Announcements (ETCA) database, formerly AFCAT 36-2223, *USAF Formal Schools Catalog* at <https://etca.randolph.af.mil/>.

10. Air Force In-Residence Courses.

<u>Course Number</u>	<u>Course Title</u>	<u>Location</u>
E3ABR3C031 005	Communications-Computer Systems Operations Apprentice	336 TRS/Keesler
E3ACR3C071 003	Communications-Computer Systems Operations Craftsman	336 TRS/Keesler
E3AZR2E251 000	Communications Info Systems (CIS)	333 TRS/Keesler
E3AZR3C051 011	NEWSDEALER Operator	333 TRS/Keesler
E3AZR3C051 027	Computer Security (COMPUSEC) Management	333 TRS/Keesler
E3AZR3C051 028	AMC C2IPS Client-Server System Administrator	333 TRS/Keesler
E3AZR3C051 035	TDC/ICAP Data Network	333 TRS/Keesler
E3AZR3C051 036	TDC/ICAP Transmission Networking	333 TRS/Keesler
E3AZR3C051 037	TDC/ICAP Voice Networking	333 TRS/Keesler
E3AZR3C051 039	CITS Base Information Protection (BIP 200)	333 TRS/Keesler
E3AZR3C051 040	Computer System Management (IPMS)	333 TRS/Keesler
E3AZR3C051 041	CITS System Network Support (SNS 100)	333 TRS/Keesler
E3AZR3C051 042	CITS Network Management Systems (NMS 200)	333 TRS/Keesler
E3AZR3C051 043	CITS Infrastructure Technology Systems (ITS 300)	333 TRS/Keesler
E3AZR3C051 044	Certification Authority Workstation (CAW)	
	Certificate Authority (CA)	333 TRS/Keesler
E3AZR3C051 046	Certification Authority Workstation (CAW) Sys Admin/Info Sys Sec Officer (SA/ISSO)	333 TRS/Keesler
E3AZR3C051 051	NEWSDEALER Message Switching System (MSS) Manager	333 TRS/Keesler
E3AZR3C051 048	TDC/ICAP System Planning	333 TRS/Keesler
E3AZR3C051 049	Deployable Defense Message System (DMS) System Administrator	333 TRS/Keesler
E3AZR3C051 057	Communications Security (COMSEC) Account Management	333 TRS/Keesler

E3OAR33S0 000	GCCS Oracle Database Administrator	333 TRS/Keesler
E3OAR33S0 001	GCCS Basic Administrator	333 TRS/Keesler
E3OAR33S0 005	GCCS UNIX	333 TRS/Keesler
E3OAR33S0 018	GCCS Security Administrator	333 TRS/Keesler
E3OAR33S0 022	GCCS System Administrator	333 TRS/Keesler
E3OAR33S0 012	GCCS UNIX and Basic Administrator	333 TRS/Keesler
E3OAR33S0 013	GCCS Oracle & Oracle Database Administrator	333 TRS/Keesler
E3OAR33S0 014	GCCS COP System Administrator	333 TRS/Keesler
E3OAR33S0 015	GCCS Windows NT Workstation System Administration	333 TRS/Keesler
E3OAR33S3C 015	GCCS Oracle	333 TRS/Keesler
E3OZR33S3A 000	Emission Security (EMSEC) Manager	333 TRS/Keesler
E4OST33S3C 001	Introductory Ada for Programmers	333 TRS/Keesler
E4OST33S3C 002	Advanced Ada Programmers	333 TRS/Keesler
E4OST33S3C 087	Object-Oriented Analysis & Design	333 TRS/Keesler
E4OST33S3C 088	Oracle Database Administration	333 TRS/Keesler
E4OST33S3C 089	UNIX System Administration	333 TRS/Keesler
E4OST33S3C 090	Windows Server/Exchange Administration	333 TRS/Keesler

Note: Training related to small computers can be obtained through the base Small Computer Systems Element of the base communications organization.

11. Air Force Institute for Advanced Distributed Learning (AFIADL) Courses.

For a current listing of AFIADL courses go to <http://www.maxwell.af.mil/au/afiadl>.

12. Exportable Courses.

12.1. For a current list of the available CBT courses refer to https://www.smartforce.com/learning_community/Custom/USAF/login.asp.

12.2. For a list of audiovisual productions and how to order them, go to the Defense Automated Visual Information System/Defense Instructional Technology Information System (DAVIS/DITIS) <http://dodimagery.afis.osd.mil/>.

13. Courses Under Development/Revision.

<u>Course Number</u>	<u>Course Title</u>	<u>Location</u>
E3AZR3C051 050	NEWSDEALER OPERATOR REVISION (CTAG)	333 TRS/Keesler
E3OAP33S0 015	GCCS Windows NT Workstation System Administration	333 TRS/Keesler
E4OST33S0 015	GCCS Windows NT Workstation System Administration	333 TRS/Keesler

Section E - MAJCOM Unique Requirements

There are currently no MAJCOM unique requirements. This area is reserved.